(51) International Patent Classification 6 :		(11) International Publication Number: **WO 97/48210**
H04L 12/46, 12/66, H04Q 7/38, G06F 15/173	**A1**	(43) International Publication Date: 18 December 1997 (18.12.97)

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(54) Title: LOGICAL IP ADDRESS ASSIGNMENT IN ATM LAN
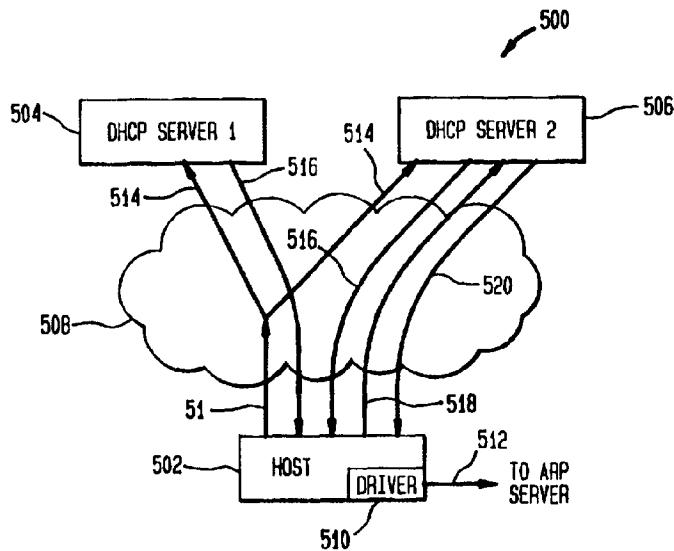
(57) Abstract

Disclosed is a method for configuring logical IP subnetworks which simultaneously supports autoconfiguration and mobile hosts (804). These capabilities are supported at the datalink layer, rather than at the network layer, as in protocols currently in use or under discussion in the Internet community and ATM Forum. The method may be used to reduce the consumption of network resources, improve delay times, and permit enhanced privacy for mobile hosts. The invention provides a method for connecting a host (502) to logical LAN, such as a logical Internet Protocol subnet when the host is attached to a datalink layer network (508) (such as an ATM network) for a LAN to which it is being physically connected, the host is assigned a network layer address (such as an IP address) identifying the desired logical LAN.